

**DEPARTMENT OF TRANSPORTATION  
DIVISION OF ENGINEERING SERVICES  
MATERIALS ENGINEERING AND TESTING SERVICES  
AND GEOTECHNICAL SERVICES  
POSITION DUTY STATEMENT**

<b>CLASSIFICATION TITLE</b>	<b>DISTRICT/DIVISION/OFFICE</b>	
Transportation Engineering Technician	DES-Materials Engineering and Testing Services Office Roadway Materials Testing	
<b>WORKING TITLE</b>	<b>POSITION NUMBER</b>	<b>EFFECTIVE DATE</b>
TET	559-320-3175-030	November 2011

**As a valued member of the Caltrans team, you make it possible for the Department to improve the mobility across California by being innovative and flexible; reporting to work regularly and on time; working cooperatively with team members and others; and treating others fairly, honestly and with respect. Your efforts are important to each member of the team, as well as those we serve.**

***GENERAL STATEMENT***

Under the direction of the Chief of the Independent Assurance and Reference Sample Program (IA/RSP), the Transportation Engineering Technician will be assigned to the IA/RSP and Hot Mix Asphalt Binder Laboratories. Incumbent will perform quality assurance testing on a variety of materials associated with construction of roadways and structures which includes, but is not limited to, performing laboratory tests on materials samples, maintain test equipment and prepare test reports. Other special assignments may include assisting with the development and implementation of new specifications, testing methods and materials used in flexible pavement and asphaltic surface treatments.

***TYPICAL DUTIES***

Percentage                      Job Description  
Essential (E)/Marginal (M)

40% (E)    Performs materials testing in the IA/RSP Laboratory. Prepares samples, conducts tests and provides results on materials including aggregates, asphalt concrete, portland cement concrete, and soil samples. Incumbent will be trained in testing procedures, equipment and reporting; and will obtain certification in compliance with Caltrans and American Association of State Highway and Transportation Officials (AASHTO) standards. Assists in logging of samples prepared and shipped. This may include communications informing engineers and technicians regarding sample preparation and shipping processes. Also assists in logging and communicating of test results. This may include communications information engineers and technician regarding results, status of evaluation and program needs.

- 40% (E) Performs materials testing in the Hot Mix Asphalt Laboratory. Conducts tests and provides results on asphaltic material samples which include asphalt binders, emulsions, rubberized asphalt binders and modified binders; and hot mix asphalt samples which include all types of hot mix asphalt. Incumbent will be trained in testing procedures, equipment and reporting; and will obtain certification in compliance with Caltrans and American Association of State Highway and Transportation Officials (AASHTO) standards. Assists in logging of samples received and in reporting of results to Construction and other requestors. This may include communications informing engineers and technicians regarding test results and procedures.
- 15% (E) Maintains testing equipment by cleaning and calibrating as necessary. Will advise lead worker and supervisor if maintenance or calibration requires extraordinary effort.
- 5% (M) Performs assignments and other duties as required.

#### ***SUPERVISION EXERCISED OVER OTHERS***

Position has no supervisory responsibilities, but must work as a member of a team to produce test results, reports and other information in a timely manner to the customers of the Division.

#### ***KNOWLEDGE, ABILITIES AND ANALYTICAL REQUIREMENTS***

Incumbent must have the ability to learn and perform numerous laboratory tests in strict accordance with detailed procedures. Incumbent must have the ability to become certified in test procedures. The work involved is of a highly technical nature and requires the ability to follow procedures and perform them repeatedly with precision and accuracy. Incumbent must be able to complete a quantity of tests in a timely fashion. Incumbent must be capable of effectively working with other personnel and communicating effectively. Incumbent must have the ability to learn and practice safe testing procedures involving the handling of hot and toxic substances.

Employee must have the ability to establish and maintain good and professional working relationships with other Department units, industry and the contractor on Department projects. Employee must be familiar and able to follow the Department policies and procedures.

#### ***CONSEQUENCE OF ERROR/RESPONSIBILITY FOR DECISIONS***

As an aggregate, asphaltic materials and hot mix asphalt tester, the employee is responsible for the accuracy of test results produced. Inaccuracies could result in increased maintenance costs and/or costly early pavement rehabilitation. Incorrect results could also result in costly delays of Caltrans construction projects and/or claims or lawsuits against the State. In addition, the employee is responsible for personal and team safety as outlined in the laboratory safety manual

and the safe practices and standards of the tests being conducted and the equipment involved. Failure to act in accordance with these standards could result in personal injury, injury to others or destruction of state property.

### ***PUBLIC AND INTERNAL CONTACTS***

The employee will communicate with Caltrans Construction, Maintenance and Materials staff in transmitting test results and responding to inquiries regarding test results and test procedures. May have limited contact with representatives of industry as well as local, state and federal agencies.

As a representative of the Department and the State of California, the incumbent is expected to maintain fair, impartial and effective relationship with clients, and conduct himself or herself in a professional and courteous manner at all times.

### ***WORK ENVIRONMENT***

For the majority of each day, the employee will work in a testing laboratory and be exposed to dirty surfaces and equipment, odors, hot liquids, flames and hot equipment. For some part of each day, the employee will work in a climate-controlled office. Both environments are under artificial lighting.

The employee may occasionally be required to travel and work outdoors, and may be exposed to dirt, noise, uneven surfaces, and/or extreme heat or cold.

### ***PHYSICAL, MENTAL AND EMOTIONAL REQUIREMENTS***

The employee may be required to stand for long periods of time (1) using various testing equipment, (2) reading and recording test results, (3) reviewing and calculating data. Incumbent may be required to sustain the mental activity needed for conducting tests and calculating results. Problem solving, analysis and reasoning may be required to respond appropriately to situations and to develop and maintain cooperative working relationships. The employee may occasionally be required to move equipment and test materials that require lifting up to 50 lbs.

Employee will be required to develop and maintain cooperative working relationship and respond appropriately to difficult situations. The incumbent behaves in a fair and ethical manner toward others and demonstrates a sense of responsibility and commitment to public service. The incumbent values cultural diversity and other individual differences in the workforce. The incumbent considers and responds appropriately to the needs, feelings, and capabilities of different people in different situations.

I have read, understand and can perform the duties listed above. If you believe you may require reasonable accommodation, please discuss this with the hiring supervisor.

\_\_\_\_\_  
Employee (Print)

\_\_\_\_\_  
Employee (Signature)

\_\_\_\_\_  
Date

I have discussed the duties with and provided a copy of this duty statement to the employee named above.

\_\_\_\_\_  
Supervisor (Print)

\_\_\_\_\_  
Supervisor (Signature)

\_\_\_\_\_  
Date